

RECENT PAPERS BEARING ON METEOROLOGY.

H. H. KIMBALL, Librarian.

The subjoined titles have been selected from the contents of the periodicals and serials recently received in the Library of the Weather Bureau. The titles selected are of papers or other communications bearing on meteorology or cognate branches of science. This is not a complete index of the meteorological contents of all the journals from which it has been compiled; it shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau. Unsigned articles are indicated by a —

American monthly review of reviews. New York. v. 36. July, 1907.

— A year of delayed harvests. p. 79-83.

Journal of geology. Chicago. v. 15. April-May, May-June, 1907.

Hobbs, William Herbert. The recent advance in seismology. p. 288-297, 396-409.

Physical review. Lancaster, Pa. v. 24. June, 1907.

Trowbridge, C. C. On atmospheric currents above fifty miles from the surface of the earth. p. 527-529. [Discussion of observations of meteor trains.]

Scientific American. New York. v. 96. June 29, 1907.

Gradenwitz, Alfred. A novel apparatus for demonstrating atmospheric pressure. p. 535.

Scientific American supplement. New York. v. 64. 1907.

Henriet, H. The atmosphere of cities. An investigation with a practical bearing on public health. (July 6, 1907.) p. 10-11.

Gradenwitz, Alfred. An aeronautical observatory; the elaborate equipment of a model observatory. (July 13, 1907.) p. 24-26. [Fully illustrated description of the observatory at Lindenberg, Prussia.]

Dibos, M. M. The artificial dispersion of fog; the solution of a municipal engineering problem. (July 13, 1907.) p. 30-31. [Describes successful experiments with hot air jet and with Hertzian waves. Suggests applications to navigation and rail-roading.]

Symons's meteorological magazine. London. v. 42. June 1907.

— Wilhelm von Bezold, 1837-1907. p. 83.

Archives des sciences physiques et naturelles. Genève. 4^e pér. Tome 23. 15 juin 1907.

Perrot, S. de. Charges produites par la neige sur les toits. p. 609-610.

Ciel et terre. Bruxelles. 28 année. 1907.

Dobrowolski, A. Les cristaux de glace aériens et le phénomène des halos. (16 juin 1907.) p. 183-196.

Alippi, Tito. Sur un phénomène acoustique d'origine terrestre ou atmosphérique. (1 juillet 1907.) p. 209-219. [Discusses an extensive series of observations of "brontidi" (barisal guns; mist-poeffers) in Italy.]

France. Académie des sciences. Comptes rendus. Paris.

Maillard. Sur la trombe du 22 mai 1907 dans le département du Loiret. (Tome 144. 17 juin 1907.) p. 1392-1393.

Bloch, L. Sur l'ionisation de l'air par barbotage. (Tome 145. 1 juillet 1907.) p. 54-55.

Nature. Paris. 35 année. 29 Juin 1907.

Plumondon, J[ean] R[aoul]. La sécheresse de l'année 1906. p. 77-78.

Revue néphologique. Mons. Juin 1907.

— Nébulosité à Davos 1904-1906. p. 137.

Bracke, A. Ballons piriformes contre la grêle. p. 142-144.

Annalen der Physik. Leipzig. 4 Folge. Bd. 23. 1907.

Warburg, E., and Leithäuser, G. Ueber die Oxydation des Stickstoffs bei der Wirkung der stillen Entladung auf atmosphärische Luft. p. 209-225.

Barkow, Erich. Versuche über Entstehung von Nebel bei Wasserdampf und einigen anderen Dämpfen. p. 317-344.

Beiträge zur Physik der freien Atmosphäre. Strassburg. 2 Bd. 3 Heft.

Rosenthal, Elmar. Ueber trockene Zonen der freien Atmosphäre. p. 79-91.

Bassus, K. v[on]. Ueber die Windverhältnisse in der oberen Inversion. p. 92-95.

Hergesell, Hugo. Die Erforschung der freien Atmosphäre über dem Polarmeer. p. 96-98.

Kleinschmidt, Ernst. Die Feuchtigkeitsmessung bei Registrierballonaufstiegen. p. 99-124.

Gaea. Leipzig. 43 Jahrgang. August 1907.

— Eine Beobachtung des künstlichen Brockengespenstes. p. 462-465. [Review of paper by Richarz.]

— Niederschlag, Abfluss und Verdunstung in Mitteleuropa. p. 465-472. [Review of work by H. Keller.]

Geographische Zeitschrift. Leipzig. 13 Jahrgang. 11 Juni 1907.

Sapper, Karl. Island. p. 225-243. [Climate p. 226-229.]

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Himmel und Erde. Berlin. 19 Jahrgang. Juni 1907.

Hennig, Richard. Witterung und Weltgeschichte. p. 405-423.

Meteorologische Zeitschrift. Braunschweig. Bd. 24. Juni, 1907.

Börnstein, R. Aus Goethes Meteorologie. p. 241-247.

Becker, Aug. Zur Messung der Tropfengrossen bei Regenfällen nach der Absorptionmethode. p. 247-261.

Wundt, W. Ueber die Berechnung der Solarkonstante. p. 261-269.

Hann, J[ulius]. Zum Klima von Peru. p. 270-279. [Abstract and discussion of Bailey's Peruvian meteorology, pt. 2.]

Mihr, Fr. Zur Kenntnis der elektrischen Leitfähigkeit der Luft. p. 282-285.

Hann, J[ulius]. Resultate der meteorologischen Beobachtungen zu Lydenburg, Transvaal. p. 285-286.

Reale accademia dei Lincei. Atti. Rendiconti, Classe di scienze fisiche, matematiche e naturali. Roma. v. 16. 1 giugno 1907.

Marchi, Luigi de. La teoria elastica dell'isostasi terrestre. p. 910-916.

Monti, V. Di alcune possibili relazioni tra la sismicità della Svizzera e quella dell'alta Italia. p. 916-920.

RECENT ADDITIONS TO THE WEATHER BUREAU LIBRARY.

H. H. KIMBALL, Librarian.

The following titles have been selected from among the books recently received, as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies. Most of them can be loaned for a limited time to officials and employees who make application for them.

Angström, Knut.

Méthode nouvelle pour l'étude de la radiation solaire. Upsala. 1907. 19 p. 4°. (Nova acta Regiæ societatis scientiarum upsaliensis, ser. 4, vol. 1, no. 7.)

Barnes, Howard T.

Ice formation, with special reference to anchor ice and frazil. New York, etc. 1906. x, 260 p. 8°.

Bavaria. K. meteorologische Centralstation.

Deutsches meteorologisches Jahrbuch, 1898. München. 1899-[1907]. v. p. f°.

Same. 1899. München. [1907.] v. p. f°.

Same. 1900. München. [1907.] v. p. f°.

British rainfall organization.

Rules for rainfall observers, by Hugh Robert Mill. London. 1906. 7 p. 8°.

Ferle, Friedr. R.

Praktische oder angewandte Meteorologie für Landwirte; für Studierende der Landwirtschaft, Landwirte, Förster etc. sowie zum Selbstunterricht. Riga. 1906. 92 p. 8°.

Iakhontov, G.

Buri Ozera Baikal. [Storms of Lake Baikal.] St. Pétersbourg. 1906. 15 p. f°. (Mémoires de l'Académie impériale des sciences de St. Pétersbourg, 8e sér., v. 19, no. 3.)

Japan. Central meteorological observatory.

Annual report, 1905. Part 1. Meteorological observations in Japan. Japan. Tokio. 1906. 345 p. 4°.

Kerner, Fritz v[on].

Thermoisodromen; Versuch einer kartographischen Darstellung des jährlichen Ganges der Lufttemperatur. Wien. 1905. 30 p. 4°. (Abhandlungen der K. k. geographischen Gesellschaft in Wien, 6. Band, 1905, no. 3.)

Lowenthal, Jacques.

Ueber das Klima von Rostock, unter Berücksichtigung der harmonischen Analysis. Schwerin. 1906. 48 p. f°. (Inaug.-Diss.-Rostock.)

Meyers grosses Konversations-Lexikon.

Meyers grosses Konversations-Lexikon. Ein Nachschlagewerk des allgemeinen Wissens. Sechste, gänzlich neubearbeitete und vermehrte Auflage. Vol. 1-16. A-Rinteln. Leipzig, etc. 1904-1907. 4°.

Müller, Rudolf.

Ergebnisse zwanzigjährigen zu Gumbinnen von 1885-1906 angestellten meteorologischen Beobachtungen. Gumbinnen. [1907.] 91 p. 8°. (Beilage zum Jahresbericht der Königlichen Friedrichschule, Ostern 1907.)

Negro, Carlo.

Evaporimetro a riflessione. Pavia. 1906. 7 p. 8°. (Extr. Rivista di fisica, matematica e scienze naturali, Pavia, anno 7, aprile 1906, no. 76.)

Le scariche elettriche e la loro relazione con la pioggia. Pavia. 1907. 11 p. 8°. (Extr. Rivista di fisica, matematica e scienze naturali, Pavia, anno 8, febbraio 1907, no. 86.)

Sull' inversione della temperatura. Pavia. 1905. 15 p. 8°. (Extr. Rivista di fisica, matematica e scienze, Pavia, anno 5, luglio 1905, no. 67.)

Sull' altezza dell' aurora polare. Torino. 1905. 20 p. 16°. (Extr.

- Bollettino mensile della Società meteorologica italiana, no. 1-2-3, anno 1905.)
- Rosenhainer, O.**
Ergebnisse der meteorologischen Beobachtungen in Ilmenau, Weimar und Jena 1900-1906. Ilmenau i. Thür. [1907.] 22 p. 4°. (Wissenschaftliche Beilage zum Jahresberichte über die Städtische Realschule zu Ilmenau i. Thür., Ostern 1907.)
- Schwab, P. Franz.**
Ueber die Schneeverhältnisse im Gebiete von Stoder. Nach den Beobachtungen des Oberlehrers J. Angerhofer. Linz. 1907. 70 p. 8°.
- Semenov, I.**
Sieverovostochnyia buri Chernago i Azovskago morei. [Northeast storms of the Black and Azof Seas.] St. Pétersbourg. 1906. 37 p. 1°. (Mémoires de l'Académie impériale des sciences de St. Pétersbourg, 8e sér., v. 19, no. 5.)
- Smith, Arthur G.**
Evaporation upon the Iowa River. (In Contributions from the physical laboratory of the state university of Iowa, v. 1, no. 1, p. 15-24. Iowa City. 1907.)
- Sonnblick-Verein.**
Fünfzehnter Jahres-Bericht für das Jahr 1906. Wien. 1907. 65 p. 4°.
- Voeikov, A.**
La variabilité interdiurne de la pression atmosphérique principalement en Asie. St. Pétersbourg. 1906. 40 p. 1°. (Mémoires de l'Académie impériale des sciences de St. Pétersbourg, 8e sér., v. 19, no. 6.)

EDUCATIONAL NOTES.

Interesting announcements regarding instruction in meteorology at Harvard University will be found in the prospectus of the division of geology, issued in pamphlet form June 20, 1907, as number 24 of Volume IV of the Official Register of Harvard University.

Geology B is the elementary course in meteorology, and is required for admission to all the courses in climatology. It counts as a half course, is given during the second half year, and includes three lectures and four hours of laboratory work each week. It is open to freshmen.

Geology 1 deals with the climatology of North America. It is a half course, given during the first half year, and includes three lectures each week and additional hours for laboratory work. It is designed to give a general view of the climates of North America especially suited to the use of students of physiography, forestry, and medicine.

Geology 2 is a half course on the geography of South America, given during the first half year. Assistant Professor Ward is the instructor, and special attention is paid to climatology.

Geology 3 (omitted in 1907-8) treats of the climatology of the Eastern Hemisphere.

Geology 19 is a half course in general climatology, given during the first half year. It includes three lectures each week and additional hours for laboratory work. It is recommended to students who intend to study medicine. The textbook is the English translation of Volume I of Hann's Handbuch der Klimatologie.

Geology 20e is a research course in climatology, primarily for graduates. It may be taken as a whole course or as a half course, but is open only to those who have past in all or most of the courses previously mentioned or who have had equivalent preparation.

In regard to the geographical and meteorological laboratory the pamphlet announces:

A large corner room on the third floor (of the geological section of the university museum building) is devoted to the elementary classes in physiography and meteorology, and is provided with tables for about forty men. Adjoining this room are two smaller rooms used for lectures before advanced classes.

As an adjunct to the meteorological laboratory, there is a students' meteorological observatory. This observatory, equipped for the practical instruction of students, is established on the roof of the geological section of the museum, with an instrument room immediately below.

Mr. H. L. F. Morse, head of the department of science in the Troy, N. Y., High School, informs us that at that school considerable attention is given to the study of meteorology. In the physics classes, numbering in all about fifty pupils, as much time as possible is spent on meteorology, under the heads of barometry, thermometry, and heat propagation. Some of the pupils get interested and pursue meteorology by themselves, following along from the weather map that comes to the school each afternoon.

In the physical geography class, numbering from forty to fifty pupils, each pupil makes, on transparent paper, a diagram from some dozen or more "lows" on the same piece of paper, each set of arrows being superposed on all the others. Also a similar diagram is prepared from a dozen "highs." From several sets of consecutive maps storm paths are traced across the continent. Each pupil makes a complete weather map from the telegraphed data. During a month in the fall and again in the spring the pupils take daily turns in reading the barometer and thermometers (dry and wet bulbs, maximum and minimum), and noting the wind direction and weather, and during these periods the weather of each day is discussed in class for fifteen minutes, the pupils finding the cause from the map of the day itself or that of the preceding day.

Most of the boys and some of the girls in this class become very good forecasters, and scarcely need to look at the predictions on the maps received from Albany.

DISSEMINATION OF USEFUL KNOWLEDGE.

The Secretary of Agriculture has been informed of the following resolution recently adopted in London:

That the members of the International Conference on Hybridization and Plant Breeding, gathered from all parts of the world, and assembled in the hall of the Royal Horticultural Society of Great Britain, desire to express to the President of the United States of America, and to the Minister of the Department of Agriculture at Washington their hearty appreciation of and thanks for the invaluable assistance which has been given to farmers, horticulturists, planters, and scientific men throughout the whole world by the liberal distribution of American research publications.

As our Government has sometimes been criticized for its efforts to disseminate useful knowledge, it is a pleasure to receive such hearty appreciation and recognition of its work. If the knowledge acquired by research at the expense of the people can be widely disseminated and made available in many practical ways, then civilization is advanced, the permanent security of the Government is assured, and an additional argument is offered for the wisdom of our forefathers in establishing a government of the people, by the people, and for the people.

METEOROLOGICAL TERMS USED IN THE PHILIPPINES.

Under date of December 23, 1906, Capt. John P. Finley, Governor of the District of Zamboanga, submits a list of native names of certain meteorological terms. This list is given in English, Maguindanao Moro, Sulu Moro, Malay, and Spanish. The Maguindanao Moro is given in both English and Arabic characters.

We regret that, not having a font of Arabic characters, we can print the Maguindanao Moro only in English characters.

As a general rule the number of specific terms applicable to specific weather conditions indicates the extent of the national habit of a close consideration of the atmosphere in its relation to the every-day occupations of the people. Among some nations it is the rain, among others the wind, and among others still the sunshine that most frequently attracts attention. It is specially interesting to find words for ice and snow coined by people who certainly very rarely, if ever, become acquainted with these in a natural way in such a tropical climate as that of the Philippines.